

## CREATING AND MANAGING STRUCTURED DATA IN AN ELECTRONIC SPREADSHEET

### Abstract

5        An electronic spreadsheet is provided for automatically creating, expanding, and  
validating lists of cells, without manual intervention by a user. A list is created in the  
electronic spreadsheet by receiving a user request for selecting a cell range in the  
electronic spreadsheet, identifying a list range for the selected cell range in the electronic  
spreadsheet, determining a header row for the list range, and generating a border for  
10    surrounding the list range. A user total row for calculating one or more aggregation  
functions for data stored in the selected cell range may also be identified. A list is  
expanded by determining that one or more cells are adjacent to the list and automatically  
expanding the list to include the new cells. A list is validated by determining a data type  
of data entered into the list and comparing the data type of the data entered into the list to  
15    a list data type. If, as a result of the comparison, the data type of the data entered into the  
list does not match the list data type, then the data type of the data entered into the list is  
invalid. If the data type of the data entered into the list matches the list data type, then  
the validity of the data entered into the list based on the data type is determined.